

# Public Health Then and Now

## Joseph B. DeLee and the Practice of Preventive Obstetrics

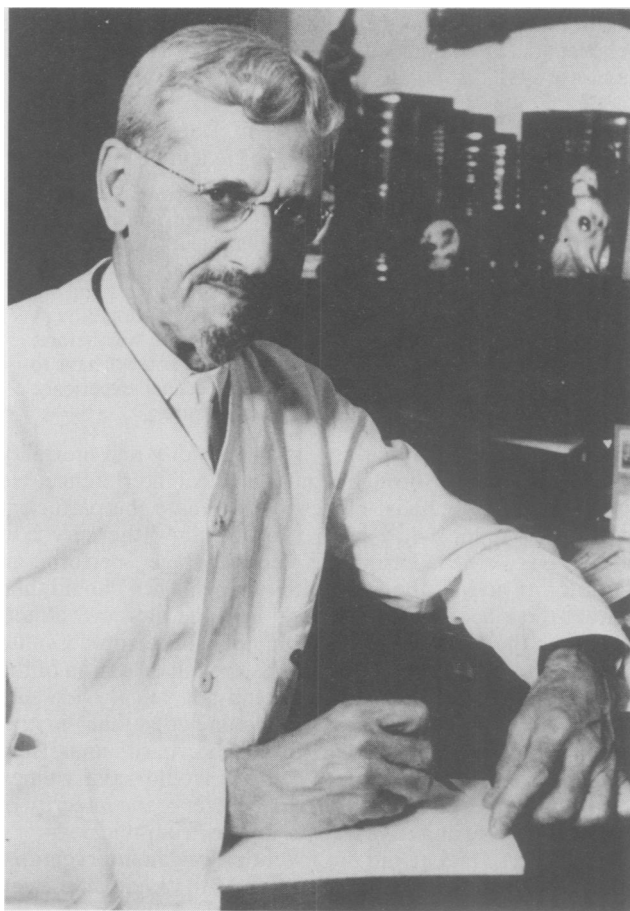
JUDITH WALZER LEAVITT, PhD

Joseph Bolivar DeLee, the Chicago physician who dominated the field of obstetrics in the early twentieth century, has been blamed in recent years for helping to increase the unnecessary medicalization of childbirth. Historians and other scholars have focused on his pathbreaking 1920 article on prophylactic forceps to conclude that DeLee overemphasized the use of drugs and instruments during labor and delivery and convinced his colleagues to perform difficult and often unnecessary interventions during their routine management of labor and delivery. The interventions, it is argued, put birthing women at greater risk from associated complications than they might have been subjected to if labor had progressed without surgical interference.<sup>1</sup> On the other hand, many medical historians have continued to credit DeLee with significant contributions to obstetrics at a critical point in its development and to place him in the pantheon of contributors to medical progress. One historian has paired him with J. Whitridge Williams of Johns Hopkins University in naming the two "titans" of twentieth century obstetrics.<sup>2</sup>

This paper offers a different interpretation of DeLee's legacy, one that does not mediate between these two, but instead explains the seeming contradictions in the career of this extraordinary physician through a focus on his conception, not unique in this period, of the meanings of prevention.

DeLee earned his international reputation through his textbooks, one for nurses, published first in 1904, and *The Principles and Practice of Obstetrics*, which went through 13 editions after it first appeared in 1913.<sup>3</sup> In addition, he published nearly 100 articles in medical and lay journals, taught generations of students in his principles, and frequently appeared before the public eye through interviews with reporters, through Paul deKruif's popularization of his work in *Fight for Life*, a book as well as a dramatic motion picture, through the films he himself made for teaching students, and through his outspoken participation in various obstetric debates. He served as head of the Department of Obstetrics at Northwestern University and Chair of the Department of Obstetrics and Gynecology at the University of Chicago. From the time DeLee began to practice medicine in Chicago in 1894 to the time of his death in 1942, he well deserved his reputation as a formidable force in American obstetrics.<sup>4</sup>

I want to begin by looking closely at DeLee's 1920 article



Joseph Bolivar DeLee

—Courtesy of the *Chicago Tribune*

entitled "The Prophylactic Forceps Operation," which has been so controversial.<sup>5</sup> DeLee wrote this article after his reputation had been established by his work at the Maxwell Street Dispensary and the Chicago Lying-In Hospital. His textbooks had already been accepted as necessary reading for students and practitioners. The article appeared in the first issue of a new journal for specialists, *American Journal of Obstetrics and Gynecology*. Superseding the *American Journal of Obstetrics and Diseases of Women and Children*, the new journal consciously strove to achieve a more professional and specialized tone. DeLee's article fit well in this context, as it too tried to create a place for specialist obstetricians and to differentiate

Address reprint requests to Judith Walzer Leavitt, PhD, Professor and Chair, Department of the History of Medicine, University of Wisconsin-Madison, 1300 University Avenue, Madison, WI 53706. This paper, submitted to the *Journal* November 1, 1987, was revised and accepted for publication April 19, 1988.

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that place from the one occupied by general practitioners who delivered babies. DeLee reminded his readers of the large numbers of women who died annually in their efforts to give birth and of the even larger number who were physically damaged during labor and delivery. He worried that perhaps childbirth was necessarily dangerous to maternal life and health in his often-quoted section comparing human to salmon reproduction: "So frequent are these bad effects," he wrote, "that I have often wondered whether Nature did not deliberately intend women should be used up in the process of reproduction, in a manner analogous to that of salmon, which dies after spawning?"<sup>6</sup> But instead of merely commiserating in this woeful potential, DeLee presented a system that he believed could begin to stem the tide of disaster, namely, routinized medical intervention to allow physicians to control the course of labor and to prevent the damage that birth could create. He believed that labor unaided was pathogenic because experience demonstrated that it adversely affected women's health, in another famous analogy likening it to a pitchfork driven through the perineum. This "natural" process, DeLee concluded, in fact put women at great risk for their life and health.

Perhaps laceration, prolapse and all the evils [women in labor are subject to] are, in fact, natural to labor and therefore normal, in the same way as the death of the mother salmon and the death of the male bee in copulation, are natural and normal. If you adopt this view, I have no ground to stand on, but, if you believe that a woman after delivery should be as healthy, as well, as anatomically perfect as she was before, and that the child should be undamaged, then you will have to agree with me that labor is pathogenic, because experience has proved such ideal results exceedingly rare.<sup>7</sup>

DeLee proposed that maternal morbidity and mortality could be decreased through regular medical interference. He suggested that specialist obstetricians sedate the parturient with scopolamine when labor started, allow the cervix to dilate, give ether during the second stage, perform an episiotomy, and lift the fetus with forceps. They should then extract the placenta, give ergot to help the uterus contract, and stitch the perineal cut. The only part of the process that DeLee left to the woman herself was the full dilatation of the cervix, admitting that medicine could not yet provide safe help for that part of the process. He concluded that "instrumental delivery is safer than prolonged, hard, unassisted labor."<sup>8</sup> DeLee believed his methods would save women from debilitating effects of suffering, preserve the integrity of the pelvic floor, and save babies' brains from injury.

Of course DeLee did not invent physician interventions during labor and delivery. Ever since they had first been invited into women's birthing rooms, in this country since the 18th century, physicians had actively participated in the birth process. Allaying some discomforts with opiates, aiding protracted labors with forceps, and by the middle of the nineteenth century obliterating pain with anesthetics, physicians had been more than watchful bystanders in the birthing rooms to which they had been called. Walter Channing, an early nineteenth-century Harvard obstetrician, had prescribed that physicians, when called to attending parturient women, "do something," and most had dutifully followed the advice.<sup>9</sup> DeLee changed the focus of action from a response to a specific perceived problem to intervening prophylactically and routinely. DeLee did not want to wait until the course of labor indicated women were in trouble and needed interventions; he wanted instead to prevent any problems from developing by intervening first, by explicitly directing the course of labor and delivery.

Just as DeLee did not initiate physician interventions at labor and delivery, he did not invent the idea of individual medical therapy aimed at prevention instead of cure. The bacteriological revolution had spawned numerous attempts by physicians to act boldly to prevent disease from getting established—from rabies vaccine (administered after a bite from a rabid dog) to efforts to control venereal diseases by case tracing and medically treating case contacts. What DeLee was proposing was new to obstetrics, but it was compatible with many other contemporaneous attempts to combine medical practice and prevention.<sup>10</sup>

DeLee did not in his 1920 article, nor did he in subsequent discussions of prophylactic forceps, advocate universal adoption of his proposed method. He in fact cautioned repeatedly against such widespread use, writing, for example, "I desire to emphasize with all my might that these remarks do not mean that every labor must be terminated by mechanical art."<sup>11</sup> He believed that the time honored maxim of "watchful expectancy" should still govern the actions of most birth attendants, and that prophylactic forceps should be saved for the specialist who practiced in an "exquisitely equipped maternity."<sup>12</sup> Such a specialist must "improve on faulty nature," but others should not interfere with labor unless faced with a situation of extreme danger. "Let us trust each man to do honestly according to his limitations. For the one, watchful expectancy, for the other, prophylactic forceps."<sup>13</sup>

The specialists who heard DeLee present his paper at the 45th meeting of the American Gynecological Society in Chicago in May 1920—such famous American obstetricians as J. Whitridge Williams, John O. Polak of New York, Henry T. Byford of Chicago, and Edward P. Davis of Philadelphia—immediately took issue with DeLee's recommendations. They objected most strongly to the routine nature of the procedure. Williams called DeLee "perniciously active" and proclaimed, "If I have understood Dr. DeLee correctly, it seems to me that he interferes 19 times too often out of 20."<sup>14</sup> DeLee defended his prophylactic interventions, but he agreed with his critics that the danger existed that "doctors who have no business to do the operation are going to do it. That is unfortunate and unavoidable."<sup>15</sup> However, DeLee did not believe experts should limit their activities by what might be appropriate for generalists.

The dilemma debated at this meeting and more generally in the profession was a significant one. These prominent obstetricians acknowledged that too many women died in childbirth: they agreed that the massacre of women could be halted by better medical technique. All acknowledged that "meddlesome midwifery," the inappropriate and technically mismanaged interference in labor associated with the practices of many doctors, caused significant problems for birthing women. All believed also that labor unattended in many cases proved just as damaging to women: a fetus's head pounding at the perineal tissues could produce damage just as surely as a misused forceps. It was not intervention itself that worried DeLee's colleagues; it was intervention without the presence of an indication it was needed. DeLee was looking for preventive techniques to save women before they suffered damage during labor and delivery; his fellow obstetricians felt more comfortable acting to obvert a dangerous situation once it presented. They wanted to cure a problem if it developed; DeLee wanted to prevent it from developing.

The language of prevention used in this context of surgical intervention was somewhat unusual in 1920. The public health movement that had emerged in the middle of the

nineteenth century had concentrated on such social prevention activities as improving urban sanitation, establishing pure milk depots, and launching vaccination campaigns. It had rarely utilized medical practice directly in its work. But by the turn of the twentieth century, physicians in various fields drew upon their new insights from bacteriology to begin to explore the ways in which specific medical therapies might reduce the risk of some of the major public health problems, including maternal and child health. Infant welfare and school health clinics, for example, freely incorporated medical attention with their efforts at prevention. This very activity caused some backlash in the medical community, and some private physicians, feeling threatened by the public dissemination of health services, which they feared depleted their patient population, actively resisted the new developments. At the time that DeLee emphasized prevention-oriented obstetrical practices, many physicians felt quite divorced from public health rhetoric and programs.<sup>16</sup>

That DeLee's concern for medically directed prevention was integral to his medical philosophy was strongly evident throughout his career. It represented his complete—if somewhat naive—faith in the power of medicine and it also reflected his understanding of the unreliable and dangerous state of obstetrics practice at the time and the differing needs of birthing women. Having been raised in an immigrant family that had its share of financial setbacks, DeLee was sensitive to the fact that he lived in a class- and race-divided country, and he believed these divisions could—and should, at least in the short run—affect the ways in which medicine was practiced. In order to understand how his 1920 insistence on prevention as active medicine emerged and to set it within a slightly broader framework, it is necessary to take a brief look at DeLee's life and career.

Joseph Bolivar DeLee was born in 1869, one of 10 children in a Cold Springs, New York, Jewish immigrant family.<sup>17</sup> His father, Morris DeLee, a dry goods merchant, did not want his son to become a physician, preferring for him the scholarly life of a rabbi. But Joseph's mother, Dora Tobias DeLee, described as the pillar of the family, helped her son realize his medical ambition. Business reverses removed the family from Cold Springs to Manhattan and ultimately to Chicago, where Joseph's oldest brother Sol had settled. As a teenager, Joseph added to the family's precarious economy by selling doorbells. In 1888 (age 19) DeLee entered medical school at Chicago Medical College, later Northwestern University Medical School. He had the financial help and support of his brother Sol through medical school, internship, and postgraduate study abroad. While a student, he worked in a Chicago baby farm, where illegitimate children suffered a frightful mortality. Finally, in 1894, Joseph, aged 25, again with his family's financial and moral support, set himself up in practice in Chicago.

DeLee's interest in obstetrics developed from his student experiences at the baby farm, where he had seen many babies die from cerebral hemorrhages, presumably associated with difficult deliveries. It was fostered in medical school by his obstetrics professor, W.W. Jaggard, who was known for his respect for his patients. "Regard the information imparted by the patient as sacred," Jaggard taught.<sup>18</sup> The high maternal and infant mortality then associated with childbirth impressed itself upon DeLee during his training, as did medicine's potential for overcoming the problems. His immediate ambition—upon returning to Chicago from Europe where he had studied maternity services—was to establish a lying-in hospital and a home-delivery service.

Maternal mortality was, in fact, extremely high in the United States at the turn of the twentieth century. Death claimed one woman for every 154 live births. Sweden's women, by comparison, suffered one death for every 430 live births. While deaths associated with infectious diseases were beginning their descent—responding in part to the activities of the public health movement and the accomplishments of the new science of bacteriology—maternal mortality maintained its nineteenth century rates until the antibiotic era. Much of the mortality was due to postpartum infection, which, physicians realized, should have declined in relation to medical knowledge about germ transmission.<sup>19</sup> DeLee set his life-time goal to use his medical expertise to stem the tides of preventable maternal mortality.

Under the auspices of Northwestern, DeLee opened a maternity clinic at the South Side Free Dispensary, but it did not thrive. When the medical school did not exhibit enough enthusiasm for the project and the community women were unresponsive to the service, DeLee was forced to look for other sources of support. Aided by the Young Men's Hebrew Charity Association, some prominent Jewish women, and again by brother Sol, DeLee finally launched the Chicago Lying-In Hospital and Dispensary in 1895. Occupying four rooms on the ground floor of a Maxwell Street tenement, in the heart of the immigrant community, the clinic opened on a cold February day when DeLee and his sister Gussie awaited the first patients.

For the next 79 years, (that is, until 1974) the Maxwell Street Dispensary (later called the Chicago Maternity Center and physically separated from the Lying-In Hospital) served Chicago's impoverished pregnant women. It received the support of the Women's Club of Chicago and various philanthropic organizations; and it maintained an association with Northwestern University Medical School, training its medical students and ultimately those from Iowa and Wisconsin in methods of aseptic home deliveries.<sup>20</sup> The facility also trained nurses in obstetric services. DeLee's name was associated with providing poor women with opportunities for safe, inexpensive home deliveries. He referred to the dispensary as "my first love" years after his own national and international reputation had been established, repeatedly emphasizing how much he cared about this part of his work. When the dispensary was threatened by financial troubles, DeLee sunk his own funds—and usually his family's as well—into its maintenance.

The Chicago Maternity Center operated on simple principles of maternity care, which DeLee disseminated throughout the profession with his labor and delivery films and his textbooks, articles, and lectures.<sup>21</sup> Free prenatal care was available to those women who registered ahead with the Center. Once labor began, a team consisting of a graduate physician, a medical student, and a nurse attended the woman in her home, bringing with them equipment for aseptic technique. They also brought principles of minimal operative interference. Indeed, if physicians on the Maternity Center staff disregarded the procedures—if, for example, they used pituitrin before the birth of the baby—they would be dismissed.<sup>22</sup>

DeLee insisted upon noninterventionist practices in his outpatient service, and he maintained the importance of watchful waiting in home-based obstetrics practices throughout his entire career. In 1916 he decried prevalent meddling practices: "Let me urge that we depart not too far from our trust in the natural forces of labor, that we still uphold the policy of 'watchful expectancy' or, if you prefer, 'armed



Home Delivery Service of the Chicago Maternity Center: Nurse prepares bags of supplies

—Hygeia, 1938

expectancy,' that we remember that the obstetrician's duty is not to make labor a surgical operation, but to conduct it as a natural function, interfering only when called on by the necessity of preventing undue suffering, or saving fetal or maternal life.'<sup>23</sup> In 1940, in one of his last published papers, DeLee based his protest against the use of posterior pituitary on similar principles: "Now why should you want to hurry a normal labor? The woman certainly has plenty of time, and if she takes nine months producing a baby I don't think she could spend her time in any better way than in devoting a few hours to delivering it. From the woman's point of view there is no hurry. Nobody has ever proved that solution of posterior pituitary has any prophylactic values."<sup>24</sup> Throughout his medical career, DeLee voiced the value of noninterventionist obstetrics.

The Maxwell Street Dispensary, serving poor women within their own homes and training physicians in elementary noninterventionist obstetrics practices, showed a side of DeLee that seems diametrically opposed to the DeLee who



Home delivery Service of the Chicago Maternity Center: Physician, medical student, and nurse prepare for delivery in kitchen of parturient's home

—Hygeia, 1938

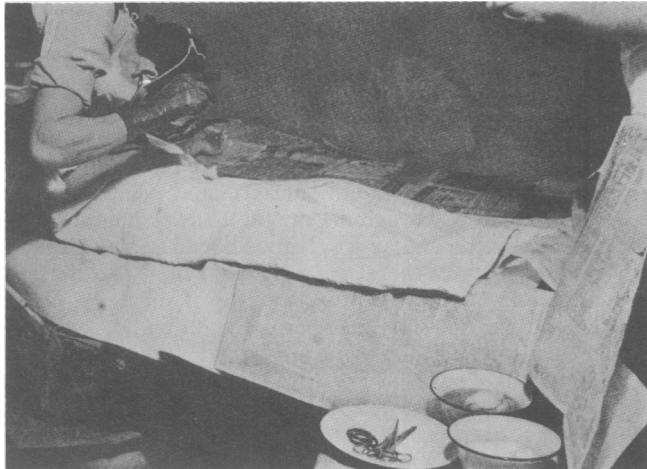
advocated prophylactic forceps. How did the two fit compatibly in the career and ideas of one man?

DeLee himself believed all his causes to be of one piece. The single thread that connected all of his obstetric concerns was saving the lives of mothers and babies as they entered into their most dangerous moments during labor and delivery. Specifically, the desire to *prevent* maternal and infant mortality and morbidity, coupled with the necessity to lift the status and effectiveness of obstetrics, which he thought necessary to achieve the first, led DeLee to his dual commitment to aseptic noninterventionist technique and to aseptic prophylactic interventions.<sup>25</sup>

Concentrating on the prevention of morbidity and mortality, DeLee recognized that different groups of birthing women were threatened with dangers from different sources. He also recognized the variety of skill levels evident among birth attendants. When he entered the practice of obstetrics at the turn of the twentieth century, about half of America's babies were delivered by physicians and the other half came into the world with the help of midwives. The physicians who attended deliveries were for the most part general practitioners, whose training in obstetrics was still limited in its practical aspects.<sup>26</sup> DeLee believed that any plan to improve maternity practices had to develop tactics suited to all of the various existing situations. He wrote about the necessity for a single standard of good obstetrics for all women, but he acknowledged that, at least in the short run, it could not take identical forms.

DeLee thought that midwives, who attended most immigrant, Black, and poor women in Chicago, gave the most inferior care. Like many of his medical colleagues, he decried the lax training, lack of professionalism, and cultural variability among midwives. Moreover, he believed that midwives, because of their community and cultural roots, lowered the "dignity of obstetric art and science." The first line defense in lowering maternal mortality for DeLee was to raise the status of the medical profession. He knew that some midwives practiced excellent obstetrics and he acknowledged that oftentimes physicians delivered substandard birthing room care. But he thought there was hope to upgrade the practices of physicians whereas he insisted the evidence suggested that midwives were unchangeable. European nations, he noticed, had "failed miserably" in their attempts to improve the practices of midwives.<sup>27</sup> His rationalization for putting midwives out of business was his position against what he identified as a "double standard" that gave rich women superior care and poor women an inferior kind of care. DeLee wanted all women to have access to first-class obstetrics, and this he defined as medically directed, even at the same time he admitted there would continue to be different standards within medicine itself. The single standard came from making all childbirth medical.<sup>28</sup>

DeLee's ideas illustrated his bias in favor of elite education and notions of expertise. His position was undoubtedly self-serving. As the son of an impoverished immigrant family who had worked his way up the social ladder, he now defended the climb. Midwives represented what he had left behind; he needed to believe that his efforts had been worthy. But it would be a mistake to judge DeLee's choices only in these terms. The excitement of medicine in this period in which the practical application of bacteriology promised new solutions to previously intractable problems was extremely compelling, and DeLee was not alone in falling under its spell. The culture at large was responding to the lure of science's promises, rejoicing that, as an article in *Good*



Home Delivery Service of the Chicago Maternity Center: Physician and nurse count fetal heartbeats. The bed on which parturient labors is arranged with newspapers; aseptic technique followed.

—Hygeia, 1938

*Housekeeping* put it, “childbirth is being lifted out of the realm of darkness into the spotlight of new science.”<sup>29</sup> DeLee genuinely believed—along with most of his medical and lay contemporaries—that medicine offered the best route to maternal health and safety. To suggest his dedication was genuine is not to deny that it was also self-serving. As a member of a medical specialty striving to prove itself, DeLee saw the obstetricians’ interest and the mothers’ interest served by medicalizing childbirth.<sup>30</sup>

Thus DeLee’s first step in upgrading services available to poor women was to replace their traditional midwife attendants with well-trained general practitioners who worked in women’s homes. DeLee’s free home delivery service at the Maxwell Street Dispensary was to serve the dual purpose of training a generation of physicians in aseptic procedures and providing quality services to poor families. He hoped that through regimented management techniques, his trained birth attendants—physicians and nurses, not midwives—could reduce to a minimum the dangers associated with many home deliveries. DeLee set out to prove that the dispensary could achieve excellent results with very small needs, and the statistics from the dispensary in fact consistently reported maternal mortality rates that the rest of the city and the nation did not match until the antibiotic era.<sup>31</sup> On a shoestring budget, with general practitioner attendants, and within the tenement homes of the inner city, the maternity center staff offered a high degree of safety to women who previously had been at significant risk for death and debility. The techniques were always noninterventionist, based on watchful waiting, long hours, and skillful aseptic care. Prophylactic forceps did not find their way into the maternity practices at the dispensary.

DeLee’s strategy was in part pragmatic. Realistically, poor women could not be reached in expensive hospitals. Not only did their cultural values prohibit their entering such institutions, but they could not afford the services, nor could the city afford public hospitals large enough to accommodate this group. The hope for the obstetric safety of the vast numbers of poor urban women rested with improving home-based care.

Less pragmatic and more reflective of ideology, DeLee

chose, of all the options available for upgrading home maternity services, to emphasize medicine over midwifery. He could have advocated improved midwife training programs, fitting his solution to the prevalence of midwives in turn-of-the-century Chicago and to his loyalty to the immigrant community from which he came. This choice would have been consistent with his belief that most labors could safely progress with “watchful expectancy” as long as danger points could be recognized and provided for. But DeLee instead looked to his new identity group, the profession of medicine, for his answer to the problem of high maternal mortality. His faith rested with the “experts.”

This is not to say that DeLee cared more about the profession than he did birthing women. He cared for both. He saw that the interests of both intertwined: through upgraded medicine women’s lives would be spared. The choices he made underscored his basic confidence in scientific applications and reflected the optimism of an immigrant who had made his own way. With the advantages of hindsight, historians can see that a choice in favor of strictly trained midwife attendants also could have led to decreased maternal mortality (as it did in Western European countries), but DeLee himself could not believe this. A product of his particular social circumstances, he rejected the authority of tradition and accepted the authority of science; he lived with a faith in progress. DeLee’s blindness to the effects of his policies, to the plight of the midwife or to the possible dangers of increasing the medicalizing of childbirth, is explained by his belief in the potential and promises of the new medicine.

DeLee’s system was two-tiered, just as the culture he saw around him in urban America. The services of the Maxwell Street Dispensary, while adequate for those who could not afford the finest medical services, did not permit the full exposition of what medicine had to offer. Thus DeLee had other ideas for the women who were not limited by their finances to minimize on medical interventions. These more prosperous women, too, faced significant risks to health and life from their childbearing experiences. They did not suffer, DeLee observed, from faulty midwife attendance, but more often they were victims of faulty medical procedures. Not knowing when to intervene, not sufficiently familiar with many obstetric techniques, and rushed to get on to the next patient, many physicians put women at great risk by practicing low-quality midwifery. Higher quality obstetrics, DeLee believed, especially in the hands of specialists using the latest techniques, could bring increased safety to this group of women. Instead of needing the regimentation of traditional obstetrics as did poor women, the more affluent could take advantage of the new heights achieved by twentieth century medicine. Carefully monitored interventions, such as prophylactic forceps, or labor induction, which DeLee advocated in 1907, and hospitalization in “exquisitely equipped” maternities—such as DeLee’s Chicago Lying-in Hospital—could enhance the birthing experiences of many advantaged women who were needlessly endangered during their confinements.<sup>32</sup>

The new Chicago Lying-In Hospital, which opened in part in 1914, fully by 1917, illustrated the ultimate in maternity services. DeLee described his imposing building as “majestic”, a “monument to obstetric ideals.” The architecture and the practices instituted at the hospital were designed to minimize infection, the major killer of parturient women. “The most rigid requirements of hospital aseptic construction have been completely met,” wrote DeLee, but the real triumph was in “the technic—the system of con-



ducting the work—and the most essential part of this is the manner in which the patient is protected from infection.” DeLee detailed the ways in which “the sad consequences of human frailty will be eliminated,” and the elaborate precautions undertaken in the isolation building. Within the walls of the Chicago Lying-In Hospital, DeLee executed his plan to provide the best that medicine could muster in the aid of women and their newborns.<sup>33</sup>

Many hospitals did not match the Chicago Lying-In, and they posed their own risks to maternity patients. DeLee was among the first to recognize that pregnant women who entered the expanding numbers of hospitals in the early twentieth century did not necessarily fare better than their sisters who remained at home to deliver their babies. Cross infection was rampant in general hospitals, and countless women fell victim to postpartum infections that they might have avoided at home. Maternal death rates remained high for hospital-going women, even when they were attended by specialist trained obstetricians. DeLee admitted in 1926 that “the maternity ward in the general hospital of today is a dangerous place for a woman to have a baby.”<sup>34</sup> Even so, he continued to believe that the future of obstetrics lay in the hospitals, and he worked hard to convince his profession through example and exhortation that maternities should be made safer by physically separating them from the wards containing pediatric, surgical, or medical patients. The idea of creating safe maternity hospitals, like DeLee’s dispensary work and like the prophylactic forceps operation, was based on the premise that prevention was the ideal toward which to work. To build maternity hospitals that would prevent infection from developing was better than trying to cope with the infections once they developed.<sup>35</sup>

The two techniques DeLee advocated, watchful waiting and active intervention, were both directed toward preventing the suffering, debility, and death associated with childbearing. Both techniques were rooted in the particular social and medical circumstances to be found in America’s cities at the turn of the twentieth century. Responding to a major public health problem of the time—the killer of mothers and babies—these techniques emphasized the medical model as the preferred route to maternal safety and, most important, they were prevention-oriented.

DeLee’s use of the language of prevention for both intervention and lack of intervention fit his vision of healthy motherhood to be brought about through the medium of expert medicine. With over 25,000 American women dying from childbirth-related problems each year, the response of the medical and public health professions had to be suited to the particular problems. Not all women had the same experiences of childbirth, nor did the dead die from the same problems. Prevention of high infant and maternal mortality, if it was to work, had to be relevant to all the situations in which women gave birth. It was medically logical for DeLee that prevention take many forms.

It was also politically logical. Maternal mortality was emerging as a public health problem as well as a medical problem in the first part of the twentieth century.<sup>36</sup> DeLee, however unconsciously, was working both sides of the fence, so to speak, when he put his campaign into preventive language. By joining the rhetorics of medicine and public health, by illustrating how the practice of medicine could be preventive, DeLee hoped to broaden his appeal to upgrade obstetrics practices and to save women’s lives. He hoped to unite medicine and public health in a common endeavor.

For DeLee the union of practice and prevention was not

just a calculated move to win adherents to the cause of the plight of vulnerable birthing women. He believed that advocacy of his methods would help the cause of the developing obstetric specialists: it would contribute to the scientific and systematic practice of obstetrics by spreading the hospital-based use of specialists’ techniques such as prophylactic forceps, and it would raise the standards of all obstetrics through more general practitioner-oriented aseptic home-based techniques. Through the multidimensional concept of prevention in medical practice, DeLee hoped to give birthing women the safety of the new medicine at the same time as obstetricians were elevated to the status of surgeons.<sup>37</sup>

To DeLee and his followers, the union of medical practice and public health in the first decades of the twentieth century ideally would have promoted public health interests at the same time as it helped the development of the specialty of obstetrics. But a causal relationship between the decline in maternal mortality and the rise of the obstetric specialty cannot be demonstrated. Despite DeLee’s local efforts and successes, national maternal mortality rates did not begin to drop at this time. Specialists, working in hospitals with the newest equipment and technology, could not bring down mortality and morbidity rates in the 1920s and early 1930s when increasing numbers of middle- and upper-class women entered the hospital for their confinements. As a study by the New York Academy of Medicine in 1933 revealed, maternal mortality rates did not respond to the increased hospitalization of birthing women. In fact, the increased use of operative procedures in hospital obstetrics led, these physicians showed, to maintaining high maternal mortality.<sup>38</sup> The lasting effect of the union between the specialty of obstetrics and the rhetoric of prevention, instead, was to upgrade the status of the specialty and to gain it a place in the increasingly competitive world of twentieth century medicine.

To note that professional development was part of DeLee’s plan is not to detract from his concern with the improvement in maternal health, but merely to point out how closely related he saw the two. DeLee never hid his interest in elevating his profession. He believed that increasing the respect accorded to obstetricians would indicate that childbearing itself was to be taken more seriously—which such a dangerous “pathological” event deserved. In DeLee’s mind the two goals of upgrading the specialty and providing safer deliveries were inextricably bound together. The safety of women depended upon the advancement of the profession.

The example of Joseph B. DeLee’s championship of preventive obstetrics is one of many possible illustrations of the early twentieth century trends to apply medical practice to public health problems. This union was promoted ideologically by bacteriology, which opened new routes to disease control, and practically by individuals throughout the country. But historians have not seen DeLee in this role previously. Historians have attributed to him a rather single minded devotion to building a medical specialty and in medicalizing a previously unmedicalized event. His 1920 article promoted this image, and the multifaceted nature of his work—and its emphasis on prevention—had not previously been analyzed.

Historical interpretations of DeLee’s championship of interventions such as prophylactic forceps rightly should emphasize the prophylaxis rather than the forceps. The forceps were the means to the end of increasing safety of affluent birthing women by systematizing labor and delivery under the care of obstetric specialists. DeLee’s advocacy of upgrading obstetrics practice by replacing midwives with

trained physicians also was part of his effort to prevent the high maternal deaths among the large numbers of poorer women then using the traditional attendants. Similarly, his campaign to improve the physical structure of hospitals was to prevent the fearsome mortality associated with the move of childbirth into the medical institutions. That the result of all of these policies was to increase the medicalization of childbirth in the twentieth century was part of their prevention-oriented original intent and meanings; DeLee believed medicine (preventively practiced) would rescue women from the dangers of childbirth. The marriage of public health and medical practice, allowing as it did for pluralistic yet controlled approaches to the problems childbirth then posed, promised to DeLee the best chance to save the lives of the thousands of birthing women who needlessly died each year.

DeLee envisioned that the practice of medicine—in this specific case, obstetrics—could be at heart preventive. That is, physicians, while carrying out their daily duties, could act to prevent pathology rather than to spend all of their time trying to cure it. Instead of rescuing sick people, physicians could prevent people from getting sick. Prevention had been viewed as the job of public health physicians; DeLee saw that it could be the job of all doctors. This definition of an intimate connection between medicine and public health in the early twentieth century evolved in a period of medical and social optimism. DeLee's vision of putting prevention directly into the routines of practicing physicians was rooted in the social realities of a class-divided society in which medicine held out the promise of improving the lives of all people. Similar notions of the possibility of achieving medical equality continue to attract policy makers today at the end of the twentieth century, and it may be that the early twentieth century concept of uniting prevention and practice will still find a place on the health agenda for the twenty-first century.

## REFERENCES

1. An example of this interpretation is Barbara Katz Rothman: *In Labor: Women and Power in the Birthplace*. New York: W.W. Norton, 1982. See also Richard W. Wertz and Dorothy C. Wertz: *Lying-In: A History of Childbirth in America*. New York: Schocken Books, 1979.
2. D.N. Danforth: Contemporary Titans: Joseph Bolivar DeLee and John Whitridge Williams. *Am J Obstet Gynecol* 1974; 120:577-588. See also Lawrence D. Longo: John Whitridge Williams and Academic Obstetrics in America. *Transact Stud College Phys Philadelphia*. December 1981; 3: 221-254.
3. In this paper, I used the following editions of these texts: Joseph B. DeLee: *Obstetrics for Nurses*, 3rd Ed. Philadelphia: W.B. Saunders Company, 1909; and *The Principles and Practice of Obstetrics*, 4th Ed. Philadelphia: W.B. Saunders Company, 1925. I would like to thank Charlotte Borst for her assistance in locating DeLee's published work.
4. For a chronology of DeLee's career and accomplishments, consult Morris Fishbein: *Joseph Bolivar DeLee: Crusading Obstetrician*. New York: E.P. Dutton, 1949.
5. Joseph B. DeLee: The Prophylactic Forceps Operation. *Am J Obstet Gynecol* 1920; 1:34-44.
6. *Ibid.*, pp 40-41.
7. *Ibid.*, p 41.
8. *Ibid.*, p 42.
9. For an analysis of physicians' interventions in normal labor and delivery, consult Judith Walzer Leavitt: *Brought to Bed: Childbearing in America, 1750-1950*. New York: Oxford University Press, 1986.
10. Allan M. Brandt: *A Social History of Venereal Disease in the United States Since 1880*. New York: Oxford University Press, 1985; and Jon Harkness: The Reception of Pasteur's Rabies Vaccine in America: An Episode in the Application of the Germ Theory of Disease, MA Paper, History of Science Department, University of Wisconsin, 1987.
11. Joseph B. DeLee: Obstetrics versus Midwifery. *JAMA* August 4, 1934; 103:310.
12. DeLee: *Principles and Practices*, p 1018.
13. DeLee: Prophylactic Forceps, p 44.
14. Discussion, *Am J Obstet Gynecol* 1920; 1:77.
15. *Ibid.*, p 79.
16. For a description of public health activities in the second half of the nineteenth century and the beginning of the twentieth, consult Judith Walzer Leavitt: *The Healthiest City: Milwaukee and the Politics of Health Reform*. Princeton: Princeton University Press, 1982; Barbara Rosenkrantz, *Public Health and the State: Changing Views in Massachusetts, 1842-1936*. Cambridge: Harvard University Press, 1972; and John Duffy: *A History of Public Health in New York City, 1866-1966*. New York: Russell Sage Foundation, 1974. Obstetricians and general practitioners delivering babies may have felt even more threatened than some of their colleagues, because they often viewed labor and delivery services as an entering wedge into a family's patronage. The very language of prevention that DeLee used may have not felt comfortable because of its connection to public health.
17. The following biographical account is adapted from Fishbein, *Joseph Bolivar DeLee*.
18. Fishbein, *Joseph Bolivar DeLee*, p 42. While demonstrating labor and delivery before the class one day, Jaggard delivered a stillborn baby. "We must pause to think that our lack of skill may have deprived the world of a future Lincoln," he told the class. That the child was a black female underscored Jaggard's respect for all patients.
19. For a discussion of maternal mortality and physicians' responses to it, consult Leavitt, *Brought to Bed*.
20. For the Wisconsin connection, see, for example, Vic Falk, "UW/Chicago," *Wisconsin Med Alumni Q* Winter 1985; 25:13. See also Margot Edwards and Mary Waldorf, *Reclaiming Birth: History and Heroines of American Childbirth Reform*. Trumansburg, NY: The Crossing Press, 1984.
21. See, for example, DeLee, Sound Motion Pictures in Obstetrics. *J Biolog Photographic Assoc* December 1933; 2:60-68.
22. For a description of maternity procedures at the Center and analysis of its low mortality, see Beatrice E. Tucker and Harry B. Benaron: Maternal Mortality of the Chicago Maternity Center. *Am J Public Health* 1937; 27: 33-36. See also DeLee: The Technique of the Chicago Lying-In Hospital and Dispensary. *Surg, Gynecol Obstet* 1906; 3:805-815.
23. Joseph B. DeLee: Meddlesome Midwifery in Renaissance. *JAMA* October 14, 1916; 67:1128; Progress towards Ideal Obstetrics, *Am J Obstet* March 1916; 73:407. He later preferred the term "intelligent expectancy," to describe how physicians should behave in the birthing room. See, *Obstetrics Versus Midwifery*, p 309.
24. Joseph B. DeLee: The Use of Solution of Posterior Pituitary in Modern Obstetrics. *JAMA* October 19, 1940; 115:1326.
25. It should be explained that DeLee himself never made the explicit claim that contradictions of his dual practices could be resolved in this way. Indeed, DeLee did not seem to be conscious of the ambiguities we identify today, with the advantage of hindsight. Perhaps he did not identify contradictions precisely because he saw none—that the idea of saving mothers and babies was all the consistency he needed. It might be that when DeLee's diary and other private papers become available to scholars that this issue can be more definitively addressed.
26. J. Whitridge Williams: Medical Education and the Midwife Problem in the United States. *JAMA* January 6, 1912; 58:1-7.
27. Joseph B. DeLee: Report of the Sub-Committee for Illinois. *Transact Am Assoc Study Prev Infant Mort*. 1914; 227-233.
28. See, for example, Joseph B. DeLee: Obstetrics versus Midwifery. *JAMA* August 4, 1934; 103:307-311.
29. Katherine Glover: Making America Safe for Mothers. *Good Housekeeping* May 1926; 88:270. See also Paul Starr: *The Social Transformation of American Medicine*. New York: Basic Books, 1982.
30. For similar trends in pediatrics, see Rima Apple: *Mothers and Medicine: A Social History of Infant Feeding 1890-1950*. Madison: University of Wisconsin Press, 1987; and Sheila M. Rothman: *Woman's Proper Place: A History of Changing Ideals and Practices 1870 to the Present*. New York: Basic Books, 1978. Rothman presents the professional activity as an effort to create a monopoly, rather than seeing the dual simultaneous interests of professional development and improving health standards, which DeLee represented in obstetrics.
31. Tucker and Benaron: Maternal Mortality. In 1932, for example, the Chicago Maternity Center reported only 1.4 maternal deaths for every 1,000 live births.
32. Joseph B. DeLee: Induction of Labor at Term. *Surg Gynecol Obstet* 1907; 5:122-125. See also the discussion of this paper, pp 141-144. For a discussion of middle and upper class women's early use of interventionists in the medical management of their labors and deliveries, see Leavitt, *Brought to Bed*.
33. Joseph B. DeLee and Richard E. Schmidt: The Chicago Lying-In Hospital and Dispensary. *Modern Hospital* June 1915; 4:85-86.
34. Joseph B. DeLee: The Maternity Ward of the General Hospital. *The Modern Hospital Yearbook* 1926; 6:67-72.
35. See, for example, DeLee: How Should the Maternity be Isolated? *Modern Hospital* September 1927; 29:65-72.

36. Joyce Antler and Daniel Fox: The Movement toward a Safe Maternity: Physician Accountability in New York City, 1915-1940. *Bull Hist Med* 1976; 50:569-595.
37. The forces propelling the developments in emerging specialties in this period are examined in Rosemary Stevens: *American Medicine and the*

*Public Interest*. New Haven: Yale University Press, 1971; and Paul Starr: *The Social Transformation of American Medicine*. New York: Basic Books, 1982.

38. New York Academy of Medicine, Committee on Public Health Relations: *Maternal Mortality in New York City: A Study of All Puerperal Deaths, 1930-1932*. New York: The Academy, 1933.

## Some Comments on the Chicago Maternity Center and on the NYC Maternity Center Association

RUTH WATSON LUBIC, CNM, EdD

Judith Walzer Leavitt's paper, Joseph B. DeLee and the Practice of Preventive Obstetrics,<sup>1</sup> is a thoughtful retrospective analysis of the work and goals of Dr. DeLee. There are striking similarities and differences between the work of Dr. DeLee through the Chicago Maternity Center and that of the Maternity Center Association (MCA) in New York City.

The MCA Log, 1915-1980,<sup>2</sup> begins with a reference to a 1915 study of facilities for maternity care which was initiated because of the concern of health experts regarding the high rates of infant loss and a general assumption that application of good prenatal and delivery care would reduce the loss.

"Dr. Haven Emerson, the then Health Commissioner of New York City, named Doctors J. Clifton Edgar, Philip Van Ingen, and Ralph W. Lobenstine a committee to analyze the existing obstetric conditions in Manhattan. . . The findings revealed that approximately thirty-five per cent of the women were delivered in hospitals, thirty per cent by midwives, ten per cent by private physicians with obstetric experience, and the remaining twenty-five per cent by general practitioners. Comparatively few of these patients had any prenatal care. . . The committee report suggested that the city be divided into ten zones for maternity care. . . that a maternity center be established in each of the ten zones."<sup>2</sup>

MCA, activated as a program of the Women's City Club, developed activities to teach the community about prenatal care, to secure such care for all mothers in the zone, and to conduct a clinic. Founded in 1918, MCA was incorporated as a not-for-profit voluntary health agency with a consumer board of directors; by 1920 there were 30 centers and sub-stations under MCA's supervision.

In 1921, Dublin and Stevens reviewed the records of 8,743 women who had received prenatal and postnatal care under MCA's supervision. They reported "a 29.2% reduction in the deaths of infants less than one month old and a 21.5% reduction in the deaths of mothers as compared with the rates in the city."<sup>2</sup>

In the meantime, Dr. Lobenstine, chairman of MCA's Medical Advisory Board from 1918 to 1931, had been investigating means for improving the work of midwives and, along with Mary Breckinridge, Hazel Corbin, Lillian Hudson, Dr. George W. Kosmak, Dr. John O. Polak, Dr. Benjamin P. Watson, and Dr. Linsly R. Williams, had

organized the Association for the Promotion and Standardization of Midwifery. That organization amalgamated with MCA in 1934, and the Lobenstine Clinic and Midwifery School which had been established in 1931 became part of MCA.

Unlike Dr. DeLee, who saw the improvement of maternity care coming through family physicians taking over midwifery practice, MCA focused rather on upgrading and standardizing the work of the midwife. After an attempt in the 1920s to operate a midwifery school for women without particular prerequisite education, the decision had been reached to educate public health nurses in midwifery.

Dr. Leavitt's article<sup>1</sup> on Dr. DeLee's work does not mention commitment to the infant or to mothercraft. In contrast, MCA emphasized the importance of nutrition in both mother and infant health and sent public health nurses to do outreach, tempting the expectant women to the clinic; mothers received a hot lunch and were given layette materials on which they could sew while instruction in infant care was carried out.

In sum, Dr. DeLee and his Chicago Maternity Center and the Maternity Center Association in New York both recognized the value of demonstrating their ideas. Dr. DeLee himself was the agent of change which established and personally supported the Chicago Maternity Center. In New York, the MCA was a voluntary health agency with a strong board of women consumers bolstered by medical advice who effected change and improvement. Both agents saw the value of non-interventionist midwifery. Dr. DeLee saw the practice as an opportunity for family physicians, while the MCA utilized the skills and experience of well-prepared public health nurses to improve the practice directly. Indirectly, through the nurse-midwife's ability to supervise indigenous and immigrant midwives rather than to stamp out their practice, many a newly arrived woman was ensured of care by someone who understood her language and other facets of her culture. This difference in approach is one which is observable even today whenever nurses and physicians problem-solve. The difference need not be looked on as divisive or hierarchical but rather as complementary for the benefit of childbearing families.

Address reprint requests to Ruth Watson Lubic, CNM, EdD, General Director, Maternity Center Association, 48 East 92nd Street, New York, NY 10128. This paper, invited by the editor, was accepted for publication June 22, 1988.

**Editor's Note:** See also related papers pp 1353 and 1361 this issue.

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### REFERENCES

1. Leavitt JW: Joseph B. DeLee and the practice of preventive obstetrics. (Public Health Then & Now) *Am J Public Health* 1988; 78:1353-1360.
2. Maternity Center Association Log, 1915-1980. New York City: MCA, 1981.